

In the Drawings

There are no amendments to the drawings.

Remarks

Applicant has cancelled claim 52. Entry of the amendment and favorable consideration thereof is earnestly requested.

Claim 41 requires among other elements “a cable, coupling said camera to said camera control unit” and including “a pair of wires, for transmitting the image data and for transmitting camera information from said camera to said camera control unit” and “said image data and camera information multiplexed on said pair of wires.” Alternatively, Claim 53 requires among other elements “multiplexing the image data and camera information to form a multiplexed signal” and “transmitting the multiplexed signal via the pair of wires to the camera control unit.” Applicant respectfully submits that these elements is not disclosed or taught in any of the cited prior art.

For example, the Examiner has submitted that U.S. Patent No. 5,896,166 (“D’Alfonso et al.”) “fails to disclose a multiplexer” but that “[m]ultiplexing of signals is a well know concept in the electrical arts” and that U.S. Patent No. 6,261,226 (“McKenna et al.”) teaches “multiplexing signals between the camera head to the processing means” and that it “would have been obvious to . . . have multiplexed some or all of the signals in the signal line of Monroe et al.” (Official Action 6/5/06, p. 4.) Applicant agrees that Monroe et al. teaches multiplexing of signals, however, nowhere does Monroe et al. teach, disclose or suggest that image data and camera information are multiplexed on a pair of wires that extends from the camera to a camera control unit as required by all the

pending claims. Rather, Monroe et al. teaches that “signals from various CCD elements may be multiplexed so as to facilitate their transmission from image capturing means located at the distal end of the endoscope to the image processing means located at the proximal end of the endoscope.” (Col. 12, lines 38-43) (emphasis added). Nowhere does Monroe et al. teach or suggest that both image data and camera information are multiplexed on a pair of wires that extends from the camera to a camera control unit. In fact, Monroe et al. only teaches that “the various outputs from the image capturing means and/or the non-visual sensor means may be multiplexed.” Unlike the presently pending claims, Monroe et al. fails to teach simultaneous transmission via signal multiplexing of both image data and camera data.

Accordingly, because none of the cited prior art teaches or suggests that image data and camera information are multiplexed on a pair of wires extending from the camera to a camera control unit as required by all the claims, no combination of the cite art can render the pending claims obvious.

Applicant further respectfully submits that it would not be obvious to modify the prior art according to the presently pending claims. It is well settled that the mere fact that references can be modified does not render the resultant modification obvious unless the prior art also suggests the desirability of the modification. See, e.g., MPEP 2143.01; *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990) (fact that prior art “may be capable of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so.”). In the present

case, Applicant respectfully submits that Monroe et al. teaches that image signals may be multiplexed for transmission from a distal end of an endoscope to a proximal end, but nowhere teaches that it would be advantageous to extend this to a camera control unit or to further include camera information in the multiplexed signal.

In addition, it is well settled that “[t]here must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself.” *In re Oetiker*, 977 F.2d, 1443, 1447 (Fed. Cir. 1992). *See also In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). In this case none of the cited art hints at the suggested modification, rather, the only motivation for making such a modification are the presently pending claims. *See e.g. W.L. Gore and Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13, (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984) (It is impermissible to assemble the prior art using the pending claims as a roadmap to select various features from the prior art where there is no motivation in the references themselves for doing so.)

Accordingly, Applicant respectfully submits that because none of the cited art suggests combination or modification accordingly the presently pending claims, no combination thereof can render the pending claims obvious.

Applicant further respectfully submits that D’Alfonso et al. teaches away from modification of the cited art to include multiplexing. For example, D’Alfonso et al.

teaches that the “reading and writing functions via the serial clock and data signal on lines 42 and 52 preferably occur during the turn-on or turn-off phases of the camera head’s use and not during the time when imager 32 is actually generating video signals.” (Col. 8, lines 22-28.) Therefore, the transmission of camera information and image data do not occur simultaneously. Rather, D’Alfonso et al. rejected multiplexing teaching that the various signals are transmitted at differing time intervals so that common wires can be used for differing tasks. (See e.g., Col. 8, lines 29-32.)

Therefore, because D’Alfonso et al. actually teaches away from multiplexing, it cannot be obvious to modify the cited references according to the pending claims.

It is respectfully submitted that claims 41-51 and 53-58, all of the claims remaining in the application, are in order for allowance and early notice to that effect is respectfully requested.

Respectfully submitted,

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